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----- Forwarded by Nancy Rumrill/R9/USEPA/US on 05/12/2009 10:14 AM -----

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To: Nancy Rumrill/R9/USEPA/US@EPA  
Cc: Surfrider Foundation <[REDACTED]>, Rick Wilson <[REDACTED]>  
Date: 11/06/2008 04:56 PM  
Subject: Lahina Maui Waste Water UIC Permit

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Nov. 6, 2008

To: Nancy Rumrill

EPA Reg. 9

From: Dr. Rick Bennett PhD

President, Applied Life Sciences LLC

Chairman, Kona Kai Eia Surfrider

Re: Waste Water Injection

The issue before you now is the permit for the Lahina Hawaii UIC permit. However, it is now prudent if not critical that all sources of waste and storm water flows in the state of Hawaii, be reviewed before permits of any type are approved for waste and storm waters.

Unfortunately, ground water in Hawaii is seen as similar and regulated as for most ground waters in the mainland. Hawaii is very unlike the mainland. Yet the Hawaii Department of health continues to disconnect ground water from sea water as a matter of policy that attempts to defy gravity. "As a matter of policy, DOI has chosen to have all underground injection discharges regulated under our UIC program and not under the NPDES permit program", L. Lua, Deputy Dir DOH 4-20-2005.

The Clean Water Act provides strong regulatory guidance for point source and hydrological connections to the waters of the US. Thus in Hawaii the UIC is not appropriate given the hydrologic facts. It is appropriate to apply the NPDES process to all injection wells and sumps in Hawaii.

Even a casual read of Hydrology of the Hawaiian Islands by Lau and Mink, 2006 Univ of Hawaii Press, shows very clearly that sea water permeates the land masses of the island and rain events percolate to sea level under the island and float on sea water. The hydrologic head creates a seaward flow of ground water. The USGS estimates of ground water flow to the sea reach 3 MGD per mile of coastline. These waters are already nutrient rich and the impact of marginal additions are becoming perilous to the near shore waters. Even in the most remote non urban areas we measure nitrates at 10 PPM and above in the very near shore brackish waters

Any and all waters added to the water shed, be it storm water, waste waters injected or waste waters eventually migrate to the sea. Lau and Mink state, "... the coastal waters surrounding the islands will continue to be the ultimate sink for waste waters, directly or indirectly."

The work by Charles Hunt of the USGS in Honolulu on the Kihei Injection well clear shows the distinct hydrologic connection that in effect is an underground diffuser delivering nutrient, chemical and pharmaceutical wastes to the near shore waters. The out sight out of mind de facto policy, threatens the ecology and economy of the islands.

As detailed the the most recent NRC report

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12465>

EPA policies are not adequate to address the control of water pollution from storm water run off. This is critically true for the very The effects of this water contamination and nutrient enrichment add to the waste water flows from any permitted and non permitted waste waters. The additive effects need to be accounted and the marginal impacts estimated. We appear to have already tipped the ecological resilience of near shore ecology as nutrient loads nourish invasive species. All efforts should now focus on nutrient and pollutant diversion and capture in the watershed! This is the focus of Coastal Zone Management Act. Thus all waste waters should be treated for maximum nutrient removal and recycled via carefully managed irrigation programs.

There are hundreds if not thousands of injection wells in the state of Hawaii. A large proportion have expired permits and the composition of the injected wastes is largely unknown and is clearly the case for Hawaii island as revealed by my research.

We urge that no long term permits for underground injection be issued pending review of the regional and statewide UIC and NPS pollution threats to our near shore waters. The single focus, permit by permit review process is no longer adequate to protect the coastal resource and the life blood of Hawai'i nei.

Sincerely

RH Bennett PhD